

Sexuality and Contraception

**The other side of human
Fertility**

What does *sexuality* mean?

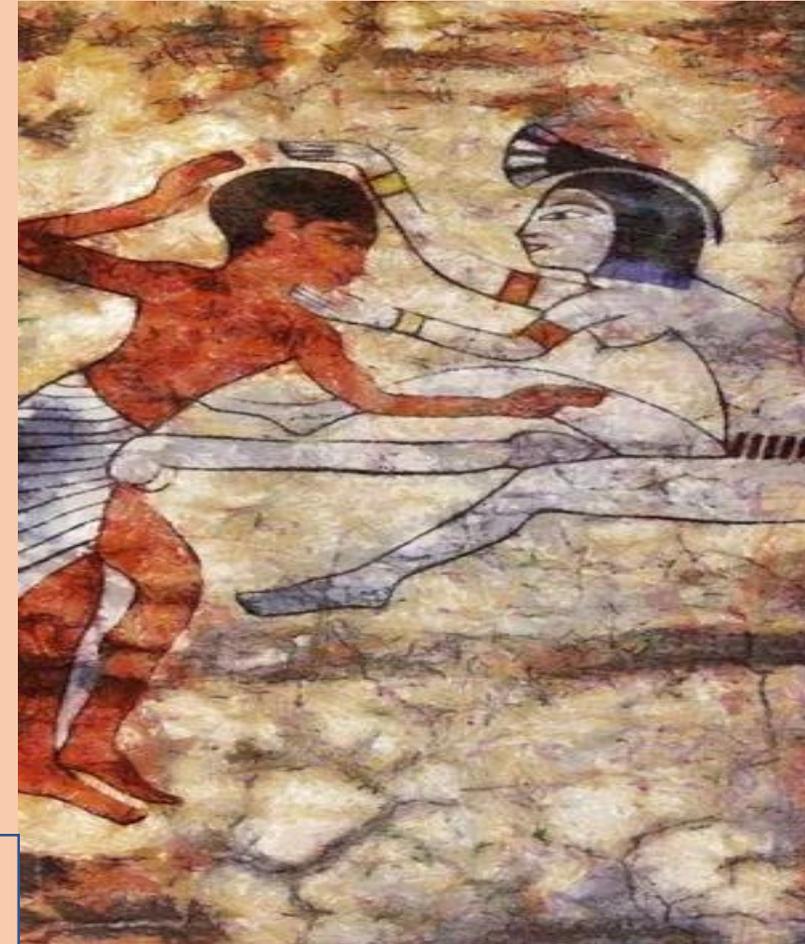
Sexuality in history

- Hunter/gatherers (H/G) and nomads:

Their main source of livelihood had come from Atum's ejaculation.

Pharaohs would perform a ceremony to thank their main god, which involved masturbating at the riverbank and making sure that the semen followed the flow of the river's waters.

Marriage focus was reproduction, only reason for divorce was infertility



Sexual framework shifting

New characteristic to these societies was the collective supervision of sexual behavior due to urbanization, and the growth of population density.

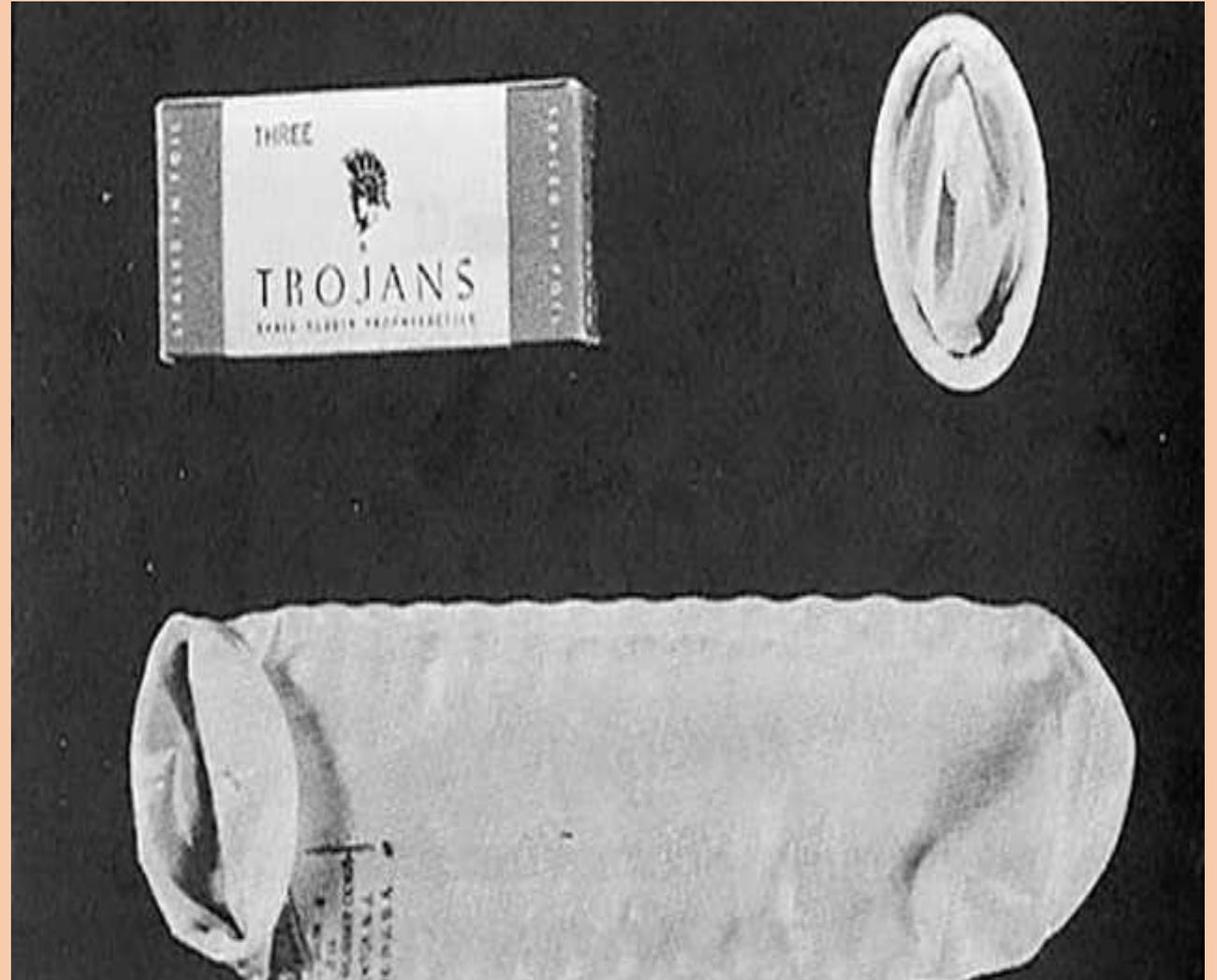
Changes in sexual ideology were used to control female sexuality and to differentiate standards by gender.

With the domestication of animals, new opportunities for bestiality arose.

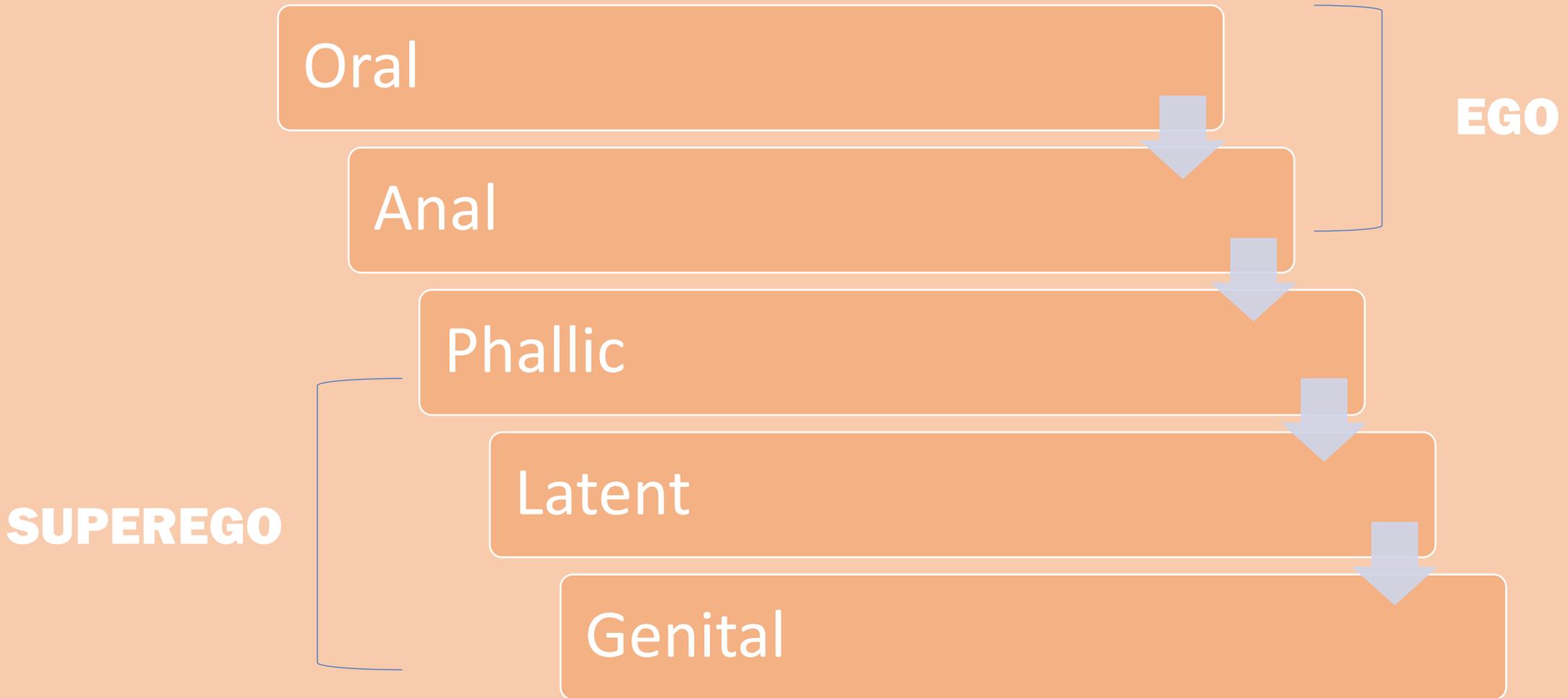


XIX Century

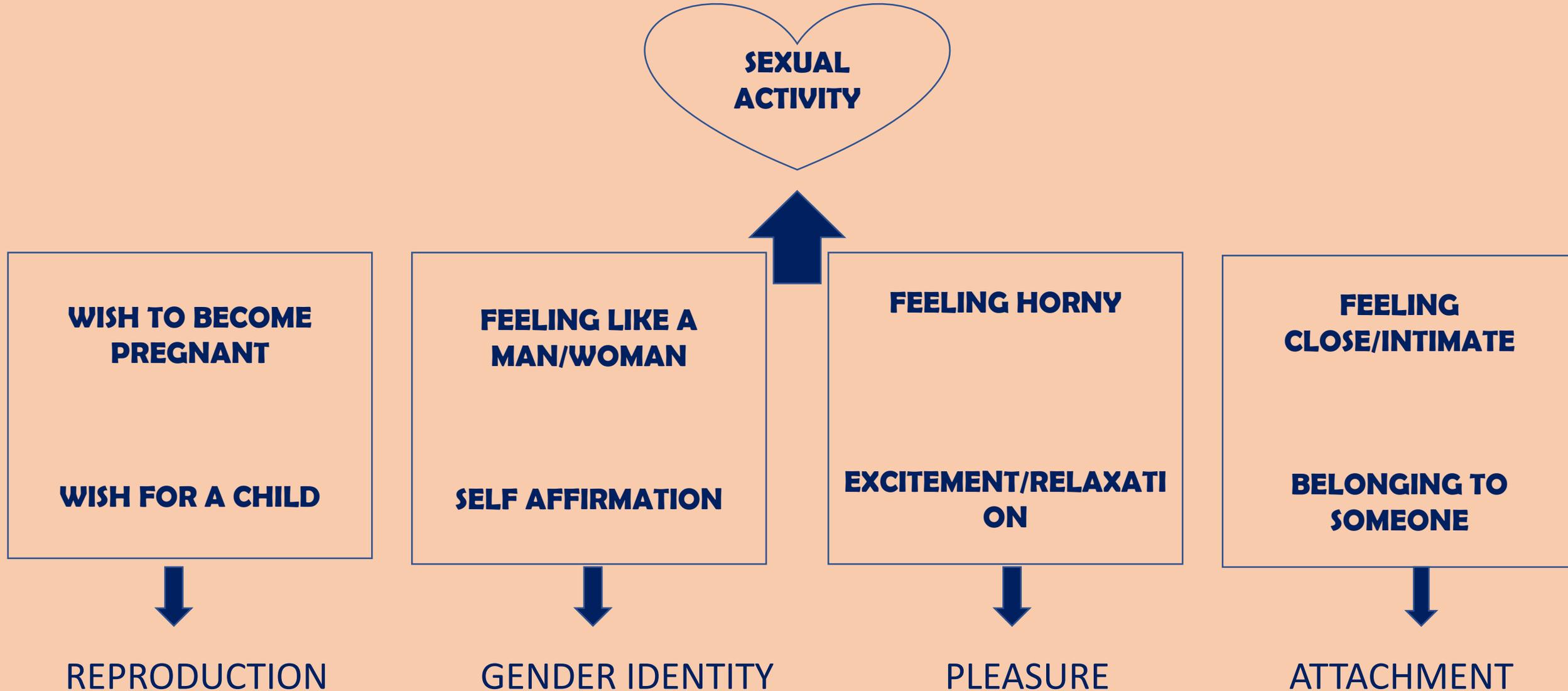
- Artificial birth control devices such as the condom and diaphragm were introduced
- Doctors started claiming a new role in sexual matters, their advice was crucial to sexual morality and health.
- New pornographic industries grew .



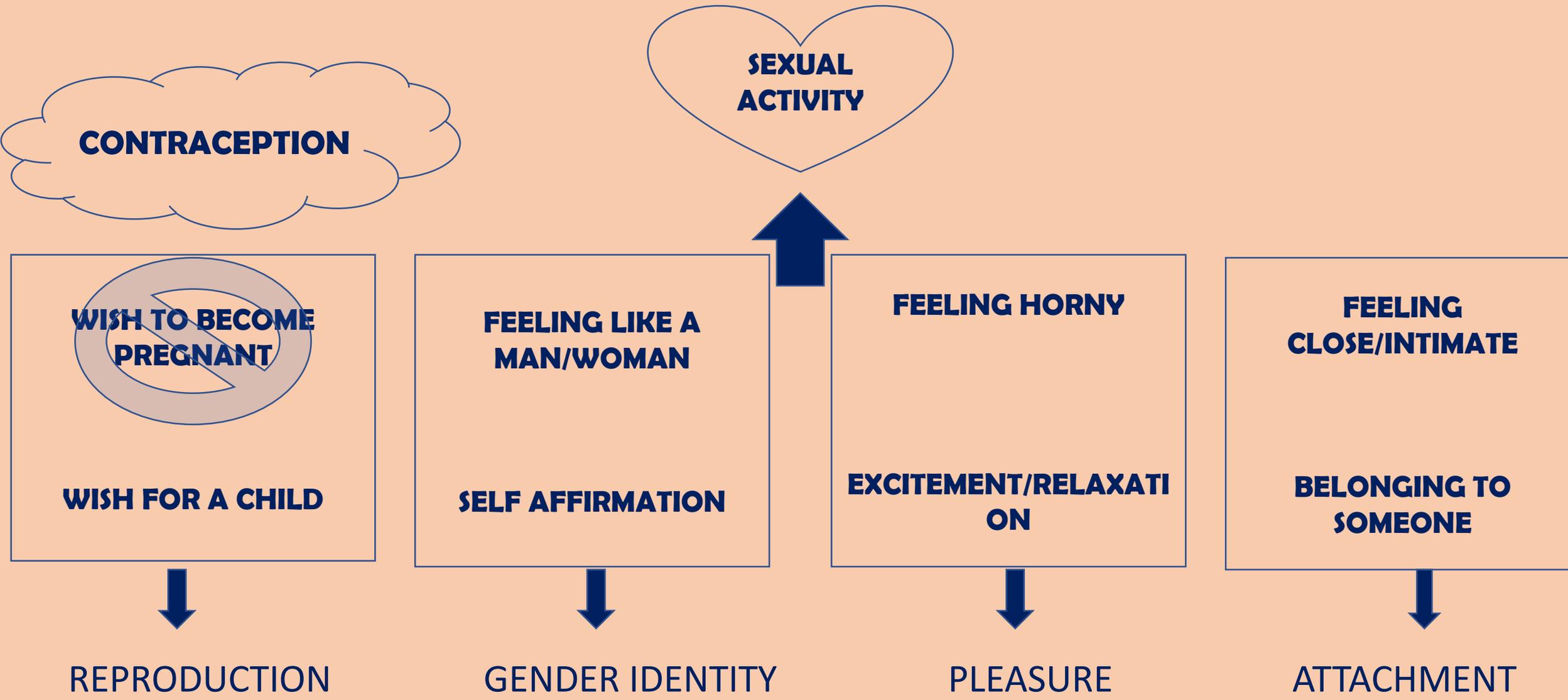
Psychosexual stages of development



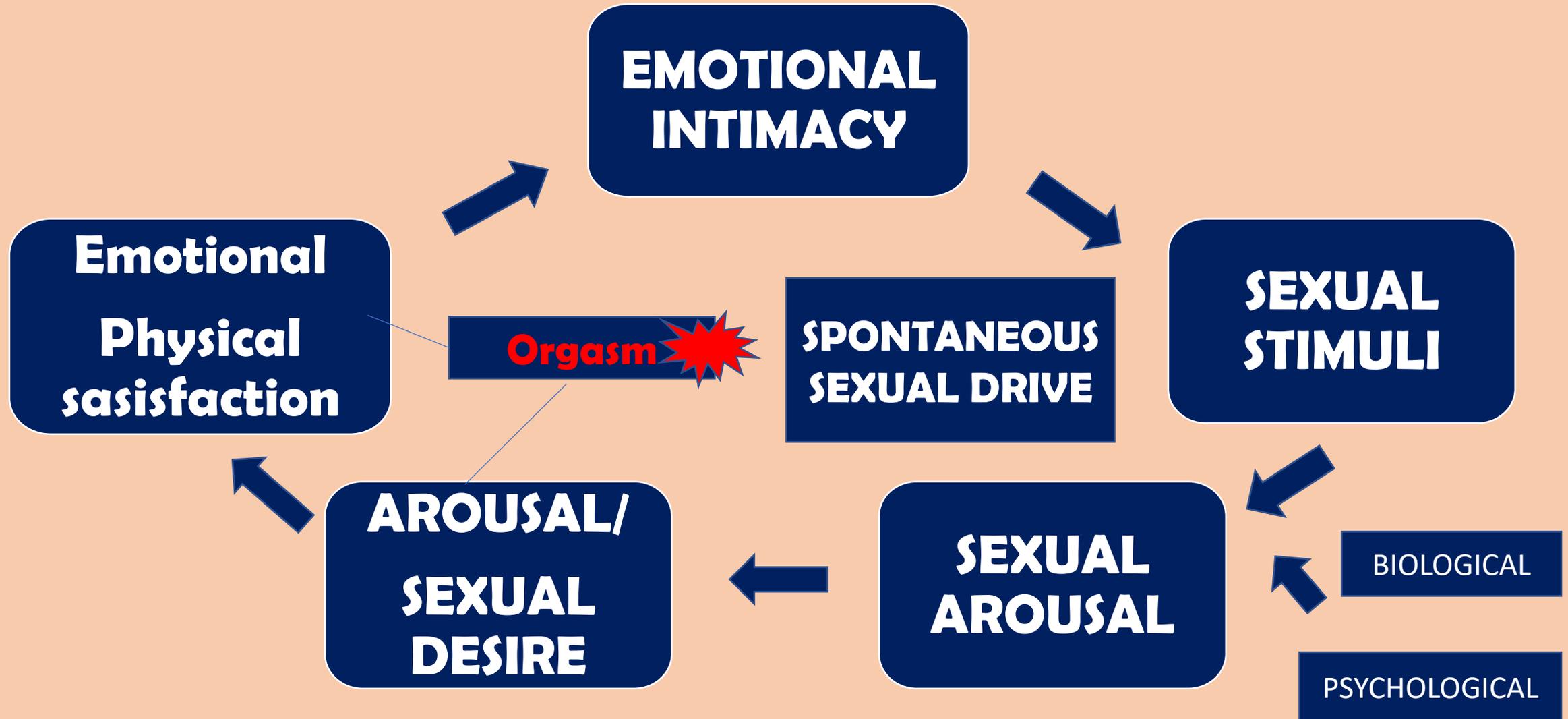
The motivation of people to be sexually active



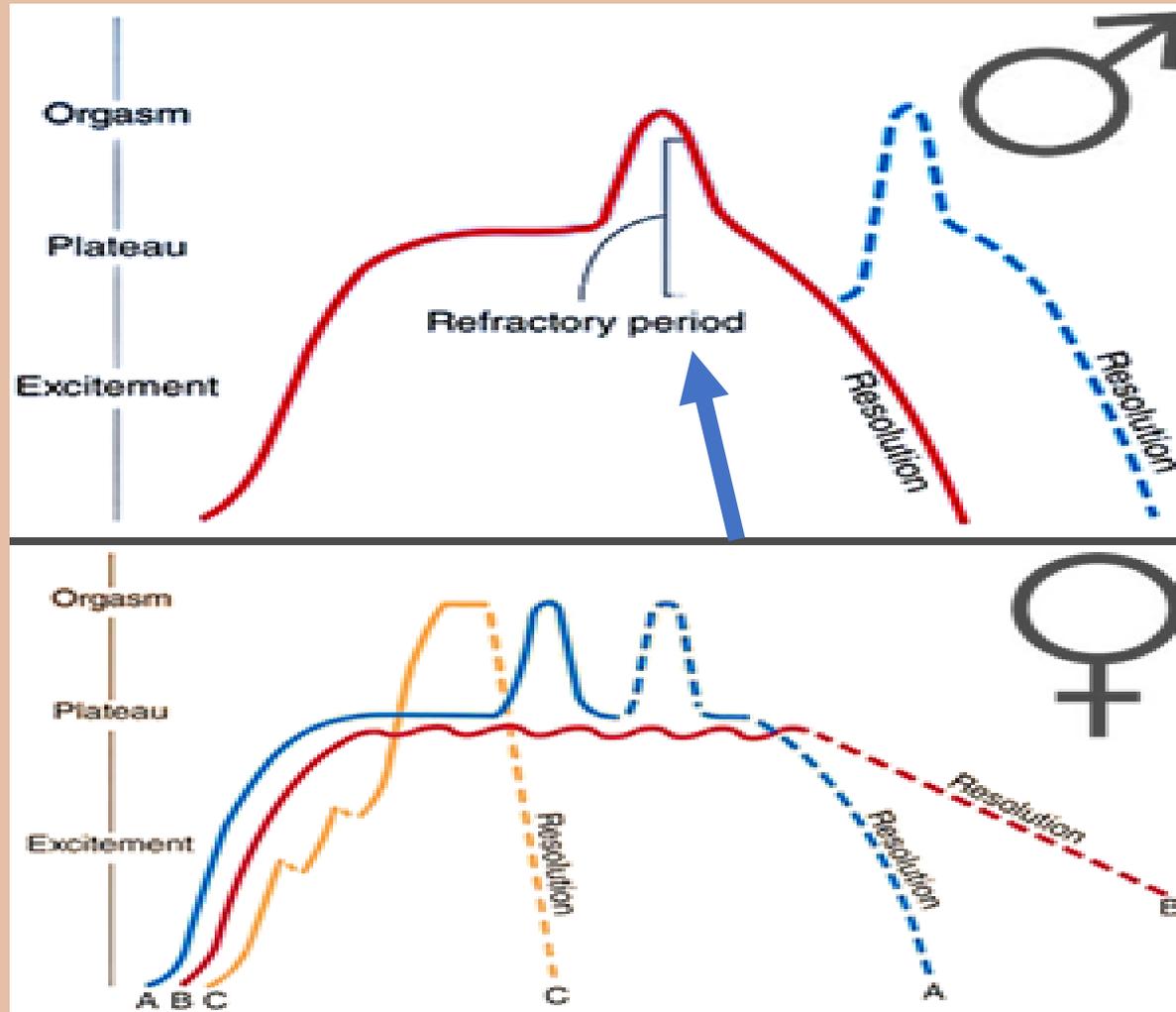
The motivation of people to be sexually active



Understanding female sexuality



HUMAN SEXUAL RESPONSE CYCLE



- EXCITEMENT
- PLATEAU
- ORGASM
- RESOLUTION

- **Is sexual function affected by infertility?**
- **How is sexual self concept impacted in infertile individuals and their partners?**
- **Does infertility have a negative impact on the sexual relationship of infertile couples?**



CONTRACEPTION

Most important questions woman ask:

Is it safe?

How does it work? (mechanism of action)

How do I use it?

What side effects does it cause?

How effective is it with perfect and typical use?

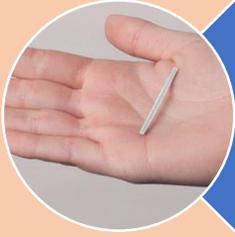
How frequently do I have to use it?

When does it begin working to prevent pregnancy?



Your pull-out game can't be weak if you never pullout. [#rollsafe](#)





Implantable Contraception



Intrauterine Contraception



Barrier Contraceptives



Emergency Contraceptives



Sterilization

Combination oral contraceptives pills



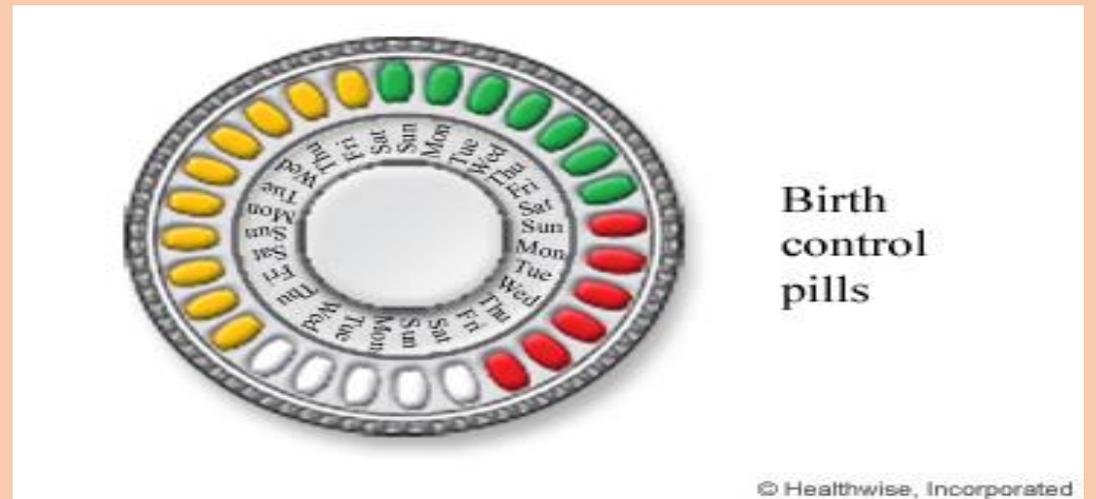
General Overview

Available for over 50 years.

Contain two hormonal components:
estrogen and a **progestin**

The evolution of the COC also involved a reduction of progestin doses and development of newer progestins, more potent than **norethynodrel**.

Recently, a COC formulation containing an estrogen ester, estradiol valorate (E2V), was developed.



Category option

Several preparations of COCs exist, varying by hormone types, dosages, and duration of hormone-free intervals.

28 days pills are available in monophasic or multiphasic preparations



Extended-cycle COC formulations are available for women who desire longer than 28-day cycles.

Clinical effectiveness

COCs are considered second-tier contraceptives.

The maternal mortality ratio is the highest it has been in over two decades.

Additionally, COCs reduce the risk of ectopic pregnancy, the leading cause of pregnancy-related deaths in the first trimester.

These formulations offer the non contraceptive benefit of **fewer bleeding episodes per year**, a benefit that may encourage women to be more consistent pill users.

! The risk of contraception failure is highest if pills are missed at the beginning of the cycle !

Mechanism of Action

The contraceptive effect of COCs is provided primarily by the progestin component.

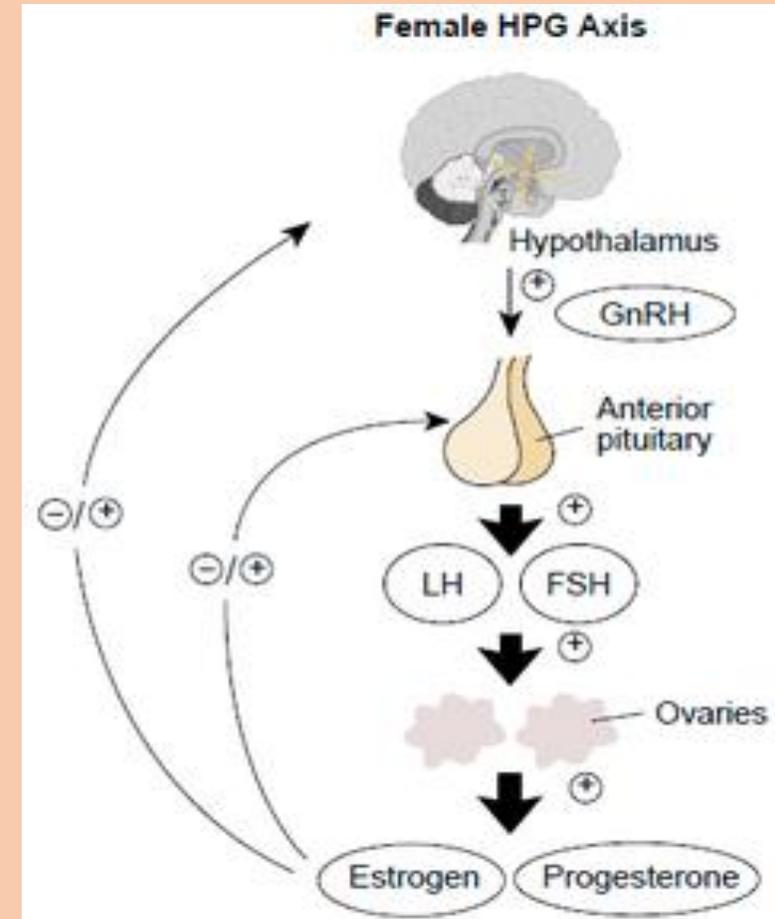
1 Inhibition of the midcycle luteinizing hormone surge, resulting in ovulation suppression.

2 Inhibition of sperm from ascending to the upper genital tract through thickening of the cervical mucus.

Other **secondary** actions include decreasing overall ovarian responsiveness to gonadotropin stimulation and decreasing motility of the uterus and oviduct thereby inhibiting ova and sperm transport.

Hypothalamic–pituitary suppression is unrelated to the age of the woman or the duration of steroid use but is related to the potency of the progestin and estrogen in the formulation.

Extending the pill-free interval for more than 7 days may result in breakthrough ovulation and pregnancy.



Contraindications

Absolute Contraindications to COC Use (US MEC 4)

- Cigarette smoking of more than 15 cigarettes per day in women 35 years or older
- Multiple risk factors for arterial cardiovascular disease (older age, smoking, diabetes, hypertension)
- Uncontrolled Hypertension
 - Elevated blood pressure levels (Systolic ≥ 160 mmHg or diastolic ≥ 100 mmHg)
- Personal history of deep venous thrombosis (DVT) or pulmonary embolism (PE) with high risk of recurrence
- History of estrogen-associated, pregnancy-associated, or idiopathic DVT/ PE
- History of recurrent DVT/PE
- Active cancer, excluding non-melanoma skin cancer
- Known thrombophilia, including antiphospholipid antibody syndrome
- Major surgery with prolonged immobilization
- Known thrombogenic mutations (factor V Leiden, protein S, protein C, prothrombin, and antithrombin deficiency)
- Complicated valvular heart disease

- Pulmonary hypertension, subacute bacterial endocarditis, or atrial fibrillation
- History of peripartum cardiomyopathy within the last 6 months
 - With moderately or severely impaired cardiac function (New York Heart Association Functional Class III or IV)
- Systemic lupus erythematosus (SLE) with positive (or unknown) antiphospholipid antibodies
- Migraine at any age with localizing neurological signs, including aura/scotomata
- Migraine without aura age 35 years or older when a new diagnosis while using a COC
- Breast cancer (current)
- Known or suspected vascular disease
 - Cerebrovascular or coronary artery disease, history of stroke
 - Ischemic heart disease (current or past)
 - Diabetes with vascular disease including retinopathy or nephropathy
 - Diabetes for more than 20 years
- Acute or chronic liver disease
- Active viral hepatitis, acute or flare (only for initiation; discontinuation of current COC use not indicated for a new diagnosis)
- Severe (decompensated) cirrhosis
- Benign hepatocellular adenoma or malignant hepatoma
- History of complicated solid organ transplantation
- Graft failure (acute or chronic), rejection, cardiac allograft vasculopathy
- Hypersensitivity to any component of the pill

Advantages and Disadvantages

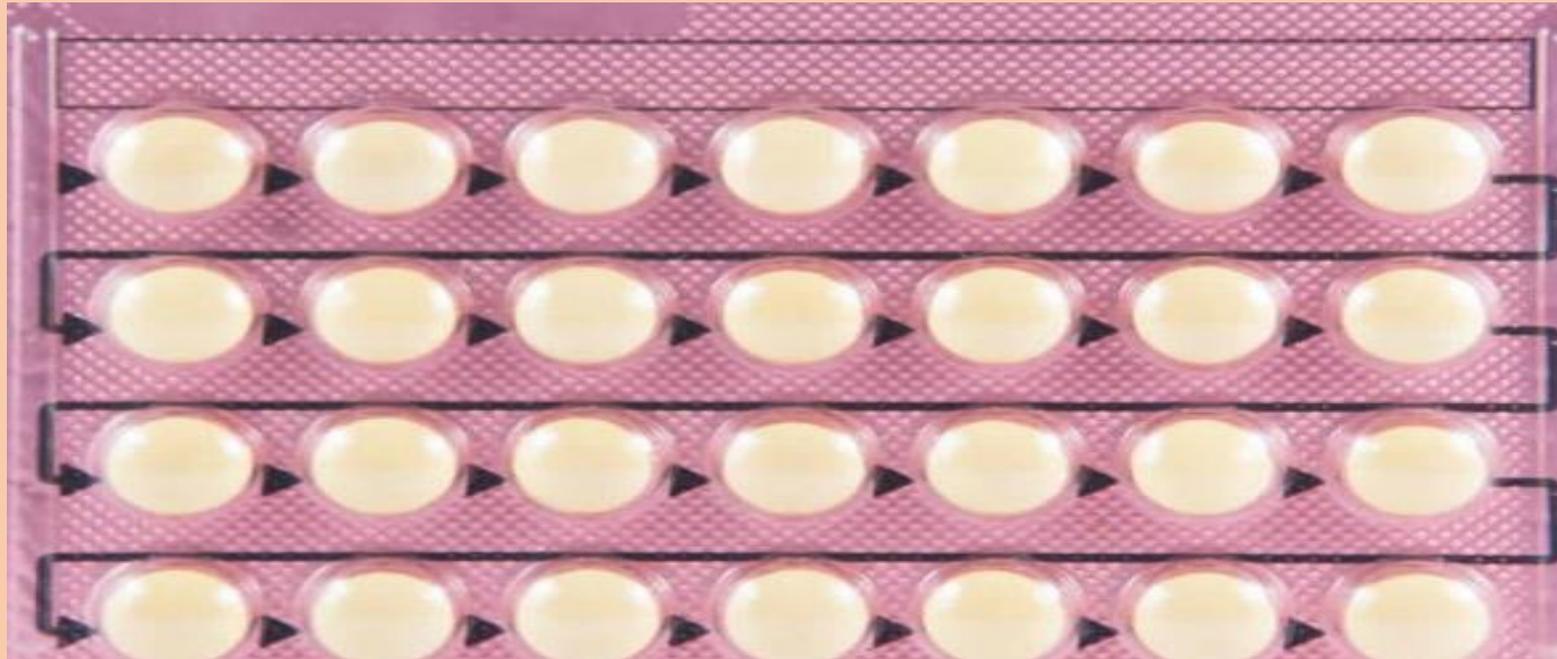
Advantages of COCs

- Moderately effective if taken correctly
- Relatively easy to use and require no special precautions at the time of intercourse
- Rapidly reversible: most women become pregnant within 4–6 months after discontinuing use
- Safe: healthy, nonsmoking, normotensive women can use COCs safely throughout their reproductive years
- COCs are associated with a long list of contraceptive and noncontraceptive health benefits, including:
 - Decreased menstrual blood loss, decreased menstrual cramping, control of bleeding patterns
 - Improvements in androgen-related problems (such as acne or hirsutism) and premenstrual syndrome
 - Decreased risk of ovarian cysts, and benign breast disease
 - Decreased lifetime risk of ovarian and endometrial cancer

Disadvantages of COCs

- Less effective for contraception than long-acting reversible contraceptives such as IUDs and contraceptive implants [18]
- Require daily use
- Although COCs are used to prevent pregnancy when having sex, COCs do not provide protection from STIs or HIV transmission that can occur during sex; a male latex condom is the best method to use to prevent infection
- Side effects including breast tenderness, nausea, headache, mood changes, bloating, skin changes, and unscheduled vaginal spotting or bleeding
- Serious risks of COC use including:
 - Venous thromboembolism (venous thrombosis and pulmonary embolism)—Although COCs increase the risk of venous thromboembolism twofold to fourfold, the risk is half compared with the risk associated with pregnancy
 - Myocardial infarction—Several studies show no increased risk in healthy low-dose estrogen COC users who do not smoke and do not have significant cardiovascular disease risk factors [64, 65]
 - Stroke—Several studies indicate that young users of low-dose COCs who do not smoke and have no risk factors for cardiovascular disease have no increased risk
 - Hypertension—Elevated blood pressure occurs in 41.5 cases per 10,000 COC users [66]

Progestin-Only Oral Contraceptives



General Overview of the Method

Progestin-only pills (POPs) are often referred to as “mini-pills” as they contain about 75 % of the progestin dose contained in combination oral contraceptives (COCs) and no estrogen.

Their typical effectiveness has been shown to be slightly less than COCs; most likely due to a more limited duration of effect and inconsistent ovulation suppression.

POPs are associated with more breakthrough bleeding than COCs but fewer serious adverse events.

Category Options

The synthetic progestins utilized in hormonal contraceptives including POPs are structurally related to Testosterone.

estrane (norethindrone)

gonane (levonorgestrel and desogestrel)

The majority of the POPs on the market contain the progestin, norethindrone.

All POP packs contain 28 days of active pills with no hormone-free interval

Mechanism of Action

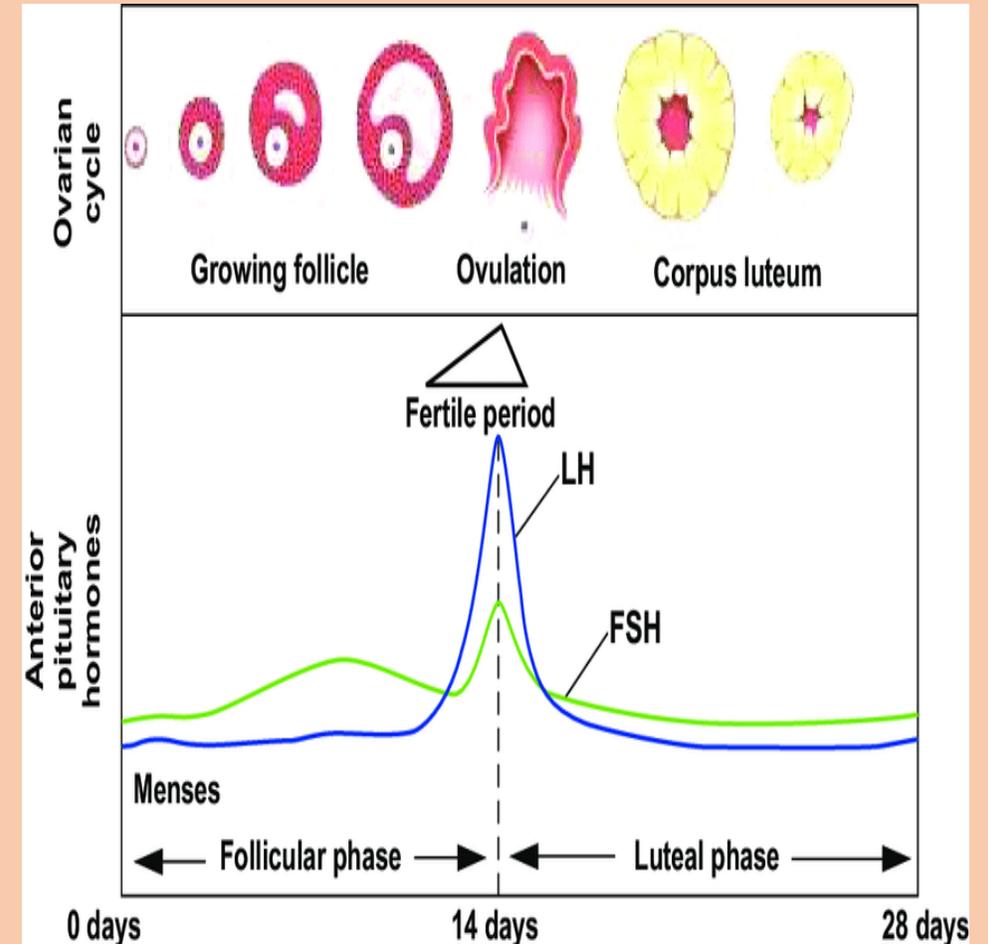
1 POPs disrupt the mid-cycle peak of luteinizing and follicle-stimulating hormone.

2 POPs have several other mechanisms that prevent pregnancy including the following:

Cervical mucus thickening to prevent sperm penetration.

Reducing cilia motion in the fallopian tube thus inhibiting ova and sperm transport.

Reducing the size and number of endometrial glands and changing progesterone receptors in the endometrium which makes it appear more inactive.



Side Effects

- Menstrual disturbance.
 - Breakthrough bleeding/spotting may account for 10–25 % of POP users .
- POPs have a higher number of spotting/ bleeding days than combination OCs.
- Functional ovarian cysts are more common in POP users compared with users of combination COCs.
 - Androgenic side effects, such as acne, oily skin, or hirsutism.
 - Decreased libido.
 - Infrequently: Nausea, breast tenderness.

Warning Signals

Headache, chest pain, neurologic changes, or unilateral painful lower extremity swelling can be a warning signs or a thromboembolic event or a stroke.

Precautions/Contraindications

Past history of breast cancer (no evidence for >5 years).

Since POPs are metabolized in the liver

- Liver disease with severe cirrhosis
- Liver tumors (hepatocellular adenoma or malignancy)
- Active viral hepatitis

If a woman develops:

- Migraines with aura while on POPs
- Ischemic heart disease while on POPs
- A cerebrovascular accident while on POPs
 - Any medication that interact with POPs, due to decreased efficacy.
 - Breastfeeding <6 weeks postpartum (WHO only).



Advantages and Disadvantages

Contraceptive-Linked Benefits

Good option for many women for whom estrogen is contraindicated.

Simple regimen because the user takes the same pill every day with no break.

Quick return of fertility.

Non-contraceptive Benefits

Health benefits of POPs may include:

Decreased dysmenorrhea.

Decreased menstrual blood loss

Decreased cyclic mood changes

Decreased risk of benign breast disease.

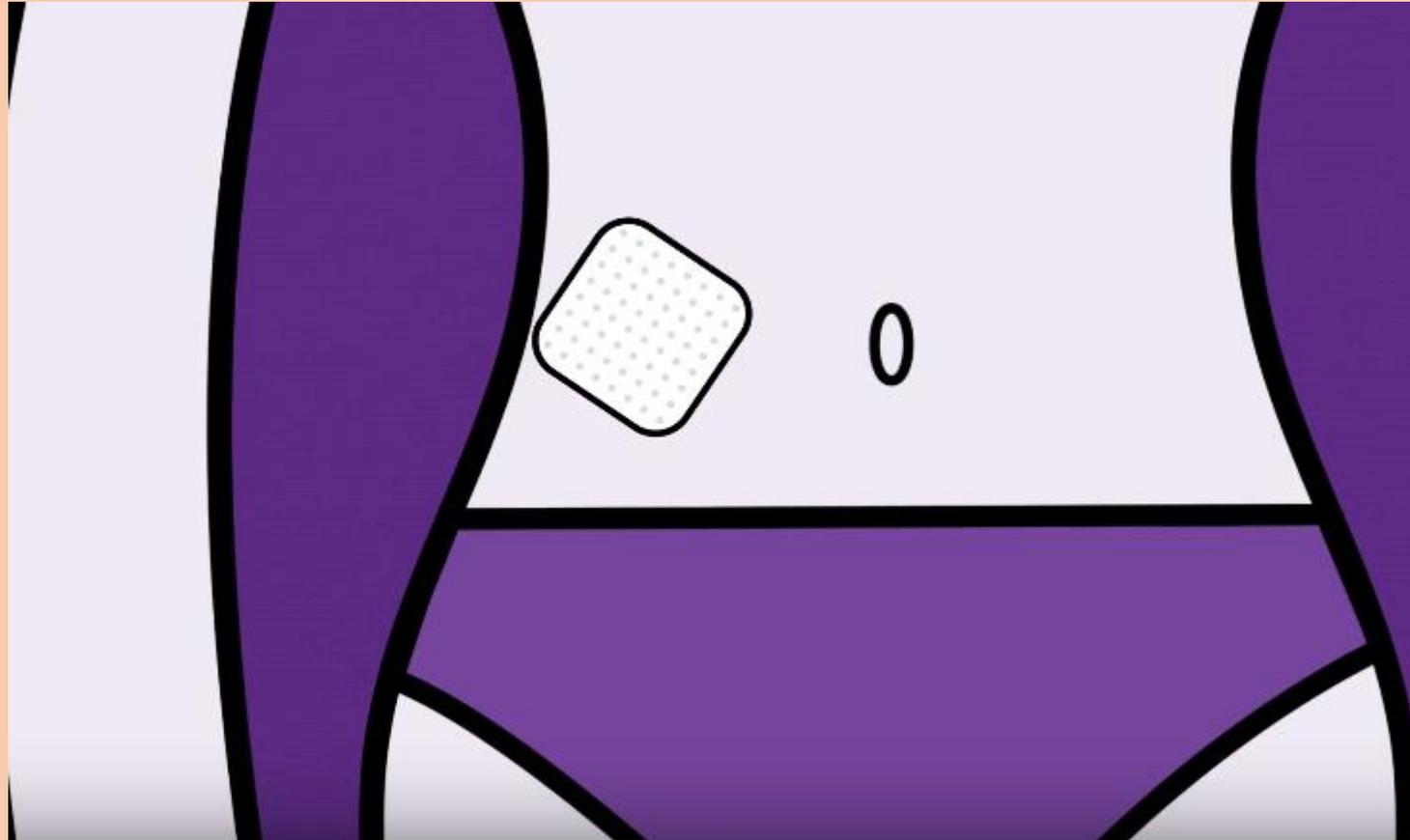
Protection from endometrial cancer.

Decreased pain from endometriosis.

Decreased pelvic inflammatory disease (from thickened, impenetrable cervical mucus).

Unlike COCs, POPs must be taken at the same time each day with no pill-free interval.

Transdermal Contraceptive Delivery Systems



General Overview of Method



The transdermal contraceptive system (TDS or patch) is a highly effective, reversible method delivering either estrogen and progestin or progestin alone similar to oral contraceptives (COCs).

The marketed TDS contains both ethinyl estradiol and norelgestromin .

Category Options

Ethinyl Estradiol/Norelgestromin Transdermal System (EE/NGM TDS, Ortho Evra)

The first-pass metabolism is avoided because the hormones are directly absorbed into the circulation by the transdermal application.

Norelgestromin is metabolized to norgestrel, while EE is metabolized to various hydroxylated products and eliminated by renal and fecal pathways.

The Ortho Evra patch is a thin, flexible, beige-colored, two-layered, matrix-type patch with a clear plastic backing that is removed before application.

The backing layer provides structural support and protects the inner layer from the environment.

The inner layer contains the active medication and also a polyisobutylene and polybutene adhesive.



Clinical Effectiveness

- Contraceptive efficacy of transdermal contraceptive patch is reported to be high comparable to COCs based on three clinical studies .
- Efficacy of the contraceptive patch (Ortho Evra) was less in women with a body weight of equal to or more than 90 kg (198 lb)

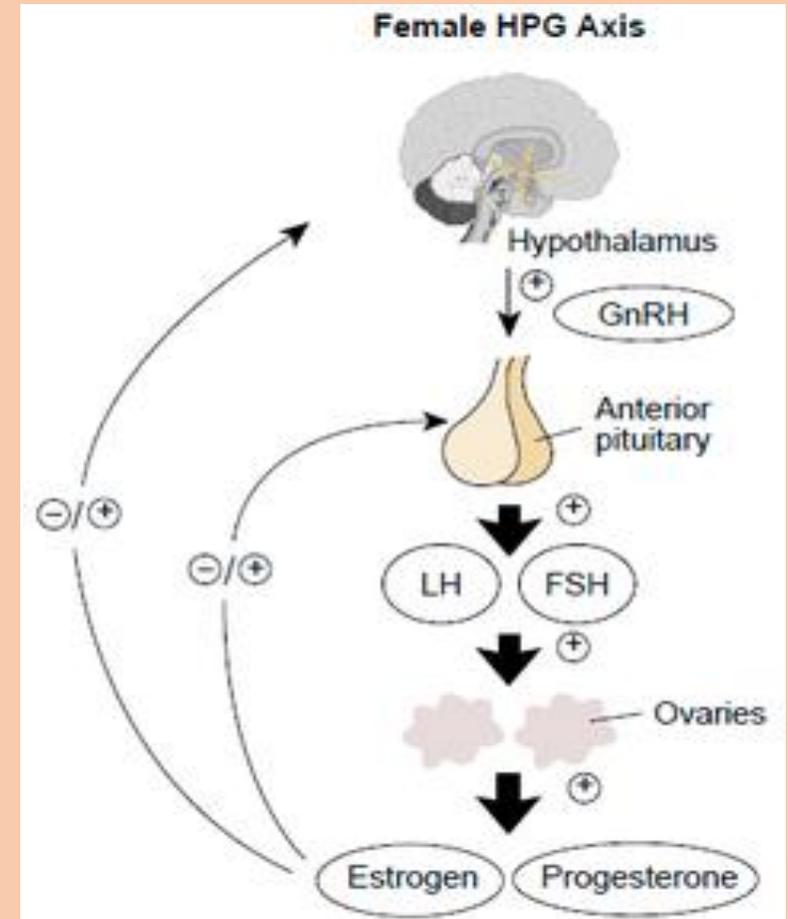
Mechanism of Action

1 Decreases gonadotropin release, thus inhibiting the mid cycle luteinizing hormone surge and preventing ovulation .

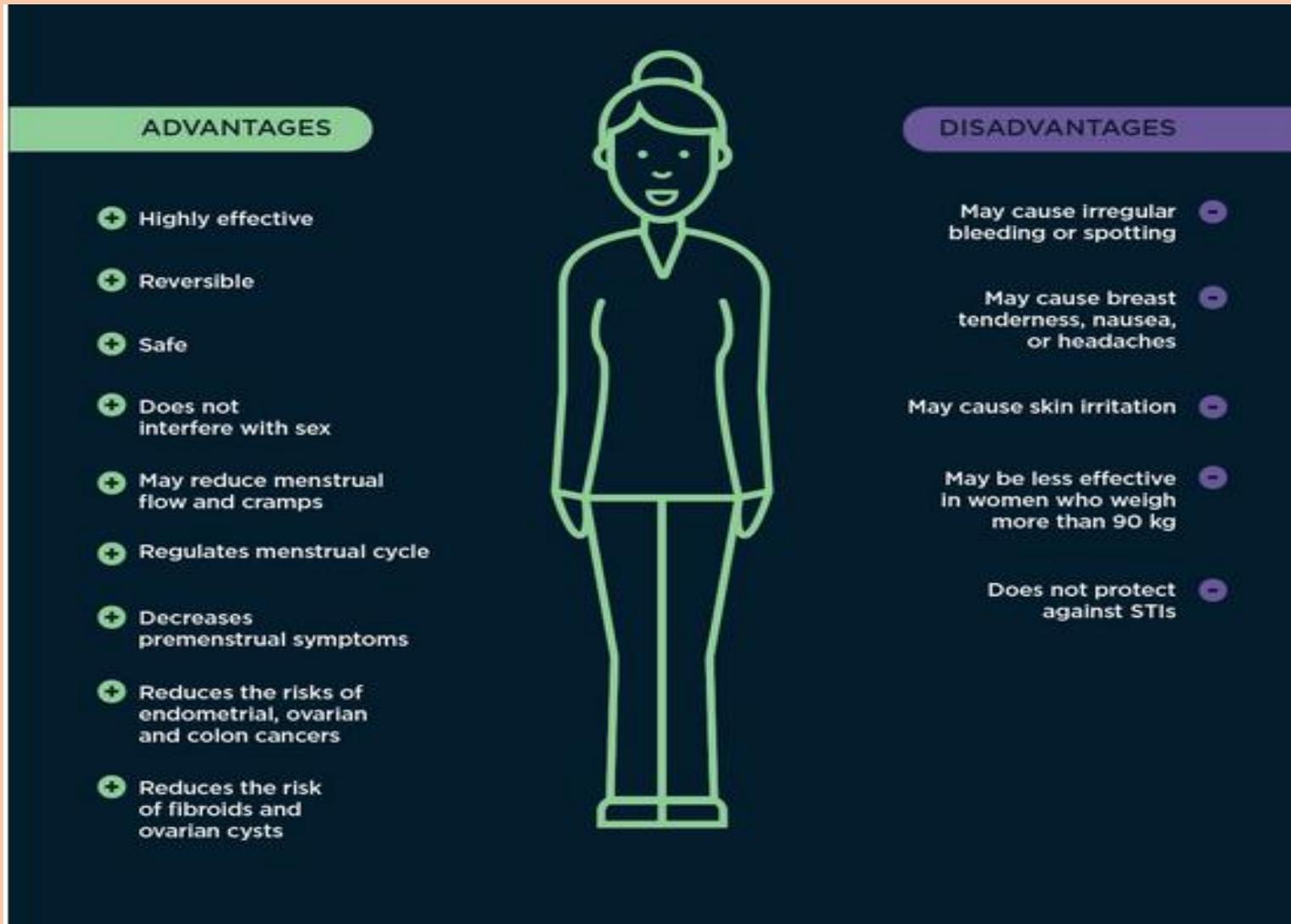
2 Prevention of follicular development due to FSH suppression during the follicular phase.

Changes in cervical mucus resulting in viscid, thick and scanty mucus, which prevents sperm penetration and inhibits sperm capacitation.

Decrease in tubal motility which increases or delays ova and sperm transportation.



Advantages and disadvantages



The infographic is set against a dark blue background. In the center is a white line-art illustration of a woman with her hair in a bun, wearing a long-sleeved top and pants. To the left of the woman is a light blue rounded rectangle containing the word 'ADVANTAGES' in white. Below this, a list of ten advantages is presented, each preceded by a white plus sign in a circle. To the right of the woman is a light purple rounded rectangle containing the word 'DISADVANTAGES' in white. Below this, a list of five disadvantages is presented, each preceded by a white minus sign in a circle.

ADVANTAGES

- + Highly effective
- + Reversible
- + Safe
- + Does not interfere with sex
- + May reduce menstrual flow and cramps
- + Regulates menstrual cycle
- + Decreases premenstrual symptoms
- + Reduces the risks of endometrial, ovarian and colon cancers
- + Reduces the risk of fibroids and ovarian cysts

DISADVANTAGES

- May cause irregular bleeding or spotting
- May cause breast tenderness, nausea, or headaches
- May cause skin irritation
- May be less effective in women who weigh more than 90 kg
- Does not protect against STIs

Side Effects

Breast symptoms

Application site reaction

Nausea

Dysmenorrhea

Mood, affect, and anxiety disorder

Vaginal bleeding

Non-contraceptive-Linked Benefits

Since patches have the same mechanism of action as COCs, they are expected to provide the same non contraceptive benefits as follows.

Menstrual bleeding control

A therapeutic option for androgen excess

Less dysmenorrhea

Less cyclic mood changes, premenstrual syndrome

Decreased risk of endometrial and ovarian cancer

Contraceptive ring



Contraceptive ring

In 2001, after more than 20 years of development, an etonogestrel/ethinyl estradiol-releasing device became the first contraceptive vaginal ring (CVR) .

Like COC the combined CVR is a safe, effective, and rapidly reversible method of contraception with similar risks and benefits.

Each contraceptive ring is active for up to 3 consecutive months.

A novel feature of this ring is that it is designed to last for 13 cycles (1 year).

Overview of the method

The ENG/EE CVR is a flexible ring made of the same plastic used to make blood bags, ocular inserts, and other medical devices.

The CVR is placed vaginally by the patient and left in place for 21 days. It is removed for a 7-day hormone-free interval to allow for a withdrawal bleed, mimicking dosing with COCs.

Most women do not feel the ring because it lies on top of the pelvic floor muscles; the ring occupies a nearly horizontal position when sitting or standing.

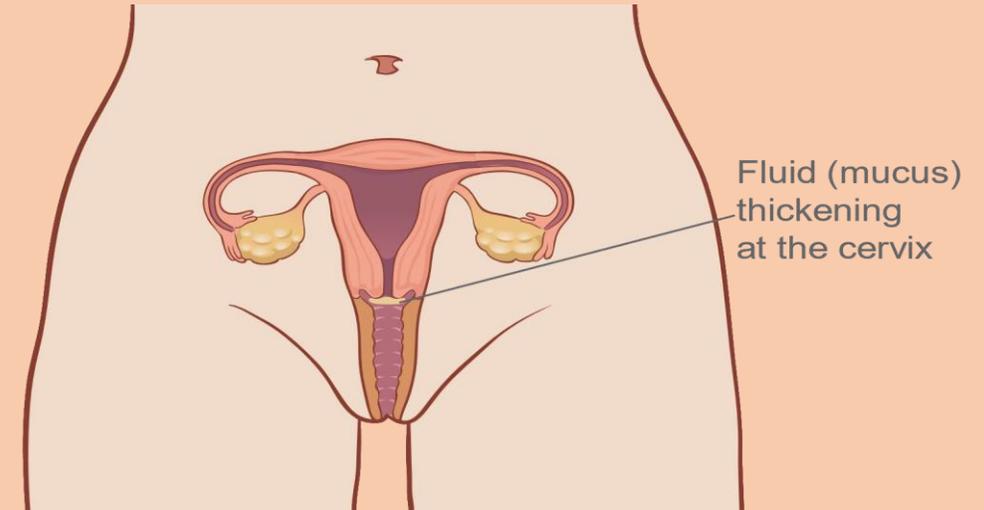
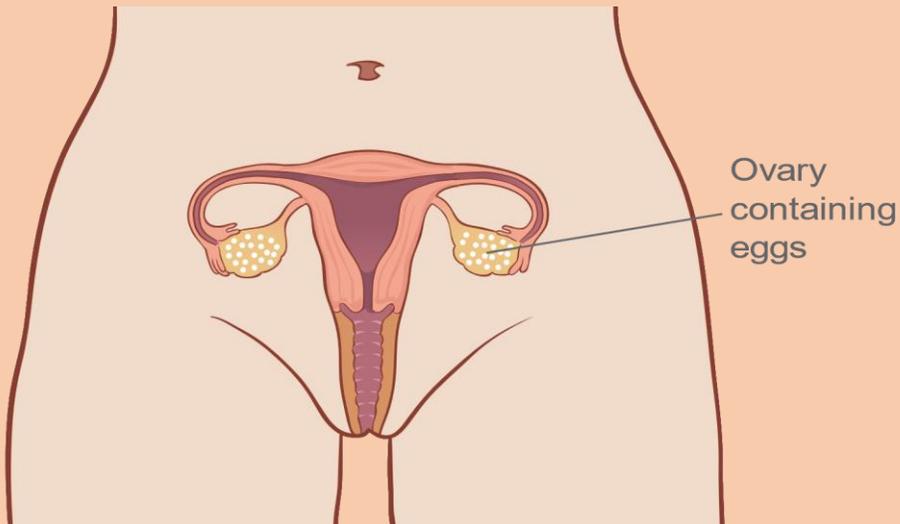


Mechanism of Action

1 CVR acts primarily by inhibition of ovulation at the

hypothalamic and pituitary level.

The progestin component suppresses release of luteinizing hormone and thus prevents ovulation, while the estrogen suppresses follicle-stimulating hormone secretion to prevent formation of a dominant follicle.



Data with the ring shows that follicles up to 13 mm in size shrink rapidly and do not progress to ovulation when the ring is administered

2 Other contraceptive mechanisms of oral progestins include cervical mucus thickening, reduced endometrial glycogen production, and reduced endometrial gland proliferation .

Advantages and Disadvantages

ADVANTAGES

- + Highly effective
- + Reversible
- + Safe
- + May reduce menstrual flow and cramps
- + Regulates menstrual cycle
- + Decreases premenstrual symptoms
- + Reduces the risks of endometrial, ovarian and colon cancers
- + Reduces the risk of fibroids and ovarian cysts
- + Does not have to be remembered each day



DISADVANTAGES

- May cause irregular bleeding or spotting
- May cause breast tenderness, nausea, or headaches
- May cause vaginal irritation, discomfort or discharge
- Requires remembering to change the ring once per month
- Does not protect against STIs

Side Effects

Vaginitis

Leukorrhea

Headache

Subjective weight gain

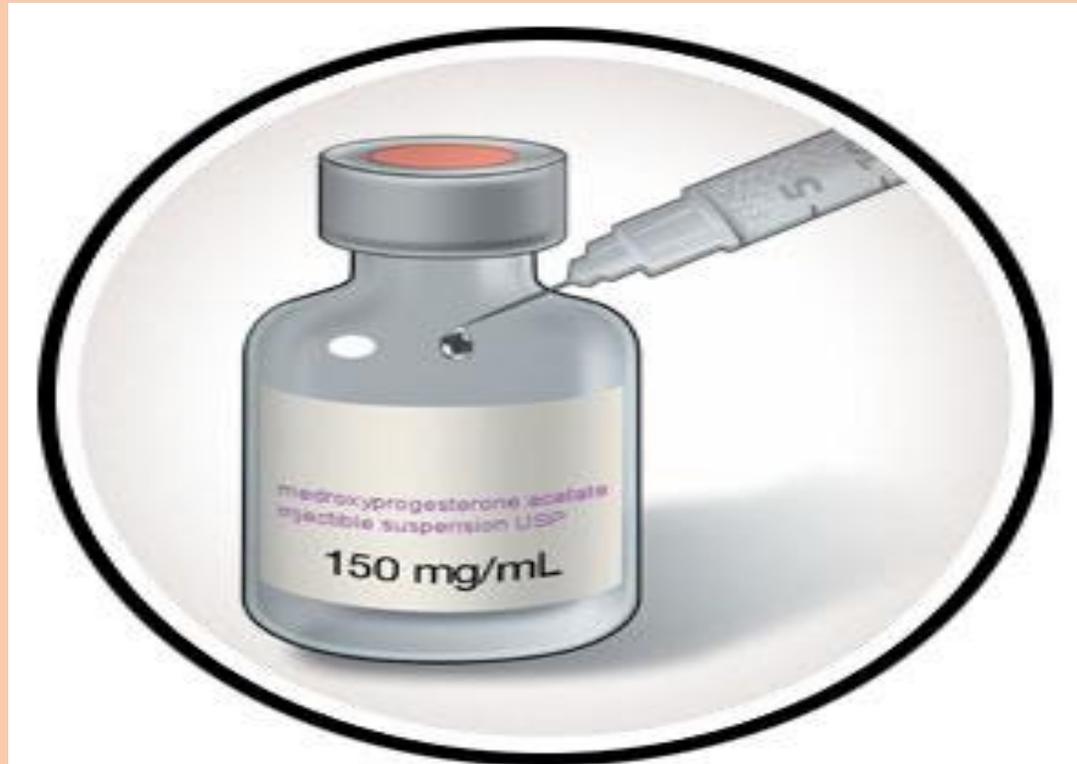
Emotional lability

Breast tenderness

Nausea

Dysmenorrhea

Progestin injectable contraceptives



General Overview of Method

- Depot medroxyprogesterone acetate (DMPA) is an injectable progestin-only contraceptive administered every 13 weeks.
- Users of DMPA can be up to 2 weeks late for their repeat injection without requiring additional contraceptive protection or pregnancy testing before reinjection.
- DMPA is an extremely effective contraceptive agent when used perfectly.
- DMPA is reversible and can be used by women of all ages, from adolescence until menopause.
- Unlike other hormonal contraceptive methods, there is a delayed return to fertility after discontinuation (median duration 10 months after the last injection)

Category Options

Depo-Provera is available in 1-mL injection vials containing 150 mg of medroxyprogesterone acetate (MPA) .

It is given by deep intramuscular injection into the buttocks or upper arm.

On December 2004, depo-subQ provera 104™, (depo-subQ), a newly formulated medroxyprogesterone acetate, was approved by the FDA as a new contraceptive option.

Depo-subQ is given subcutaneously and uses a much smaller needle than DMPA .



Mechanism of Action

1 There are three mechanisms of action:

Ovulation: suppression of the hypothalamus and inhibition of ovulation is the major mechanism of action

2 Cervical mucus: making it viscous, thick, and scanty, thus preventing sperm penetration; sperm are unlikely to reach the oviduct and fertilize an egg.

3 Endometrium: becomes thin and atrophic.

– Endometrium does not secrete sufficient glycogen to provide nutrition for a blastocyst entering the endometrial cavity.

Suppression of estradiol concentrations and a possible direct action of injectable MPA on lesions of endometriosis (causing thinning and atrophy) are likely to be responsible for the therapeutic effect on endometriosis-associated pain.

ADVANTAGES

- + Highly effective and long lasting
- + Reversible
- + Safe, convenient and discreet
- + Does not interfere with sex
- + Effectiveness is not affected by most medications
- + May be suitable for women who cannot take estrogen
- + May be suitable for breastfeeding women
- + May be suitable for women over the age of 35 who smoke
- + Reduces or eliminates periods
- + Reduces menstrual cramps and PMS
- + Reduces the risk of endometrial cancer and fibromas
- + May improve symptoms of endometriosis and chronic pelvic pain
- + May decrease the incidence of seizures in women who have epilepsy



DISADVANTAGES

- Initially, irregular bleeding is the most common side effect
- Less / lighter bleeding, to no periods
- Heavier and more frequent bleeding, including spotting in between periods
- Causes a decrease in bone mineral density which may return to normal when a woman stops using the injection
- May be associated with change of appetite and/or weight gain in some women
- Some women may have hormonal side effects: acne, headaches, breast sensitivity, mood issues/depression and a change in sex drive
- It can take a longer time to get pregnant after getting your last shot. For some, it can be approximately 6 to 10 months after the last injection for the ovaries to start releasing eggs again
- Must be administered by a health-care professional every 3 months
- Does not protect against STIs

Implantable Contraception





Contraceptive implants are progestin-based.

In most countries, two different contraceptive implants are available: **the single-rod** etonogestrel implant and **the two-rod** levonorgestrel system.

New data indicate that the etonogestrel implant's efficacy at pregnancy prevention continues for 5 year.

An important reason for the etonogestrel implant's high efficacy in actual use is the nature of the delivery system itself, requiring little effort on the part of the user.



Mechanism of Action

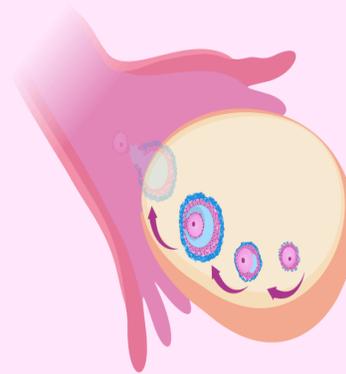
The progestin diffuses from the implant into the surrounding tissues where it is absorbed by the circulatory system .

1 Progestin-containing implants have two primary mechanisms of action:

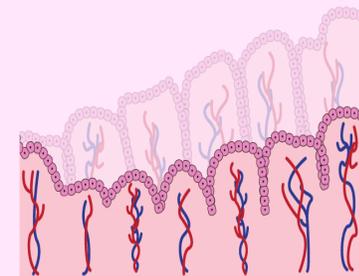
- inhibition of ovulation
- restriction of sperm penetration through cervical mucus .

2 Antiestrogenic actions of the progestins affect the cervical mucus, making it viscous, and impenetrable by sperm thus inhibiting fertilization .

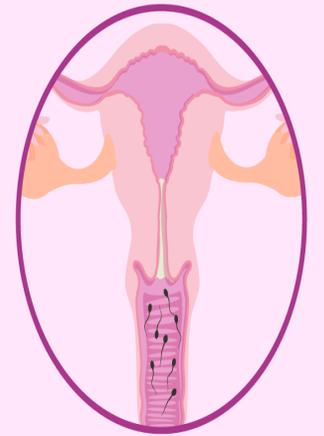
At high doses, progestins also inhibit gonadotropin secretion, thereby inhibiting follicular maturation and ovulation.



Inhibition of ovulation



Inhibition of endometrial growth



Modification of cervical mucus

Advantages and Disadvantages



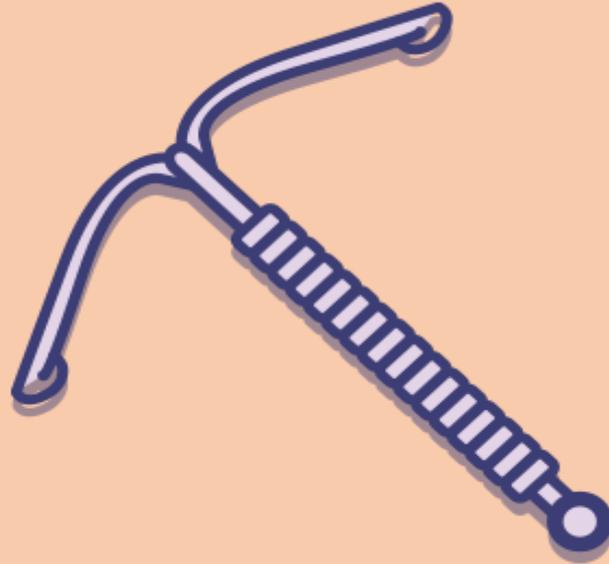
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- It can take a longer time to get pregnant after getting your last shot. For some, it can be approximately 6 to 10 months after the last injection for the ovaries to start releasing eggs again
- Must be administered by a health-care professional every 3 months
- Does not protect against STIs

Intrauterine Contraception



General Overview

In the world today, IUCs continue to be the most popular reversible method of contraception and currently the choice of more than 180 million women.

All currently available devices offer effective, reversible, long-term contraception.

The **copper** and **levonorgestrel IUCs** each manifest a unique profile of benefits and side effects.

Women using the copper IUD generally maintain their menstrual cycles, but often may experience increased menstrual bleeding.



ADVANTAGES

- + Highly effective
- + Reversible
- + Long term, forgettable and invisible
- + Cost-effective
- + Safe
- + May be suitable for women who cannot take estrogen
- + May be suitable for breastfeeding women
- + Reduces risk of endometrial cancer



DISADVANTAGES

- Initially, irregular bleeding or spotting may occur
- Expensive
- Some pain or discomfort during insertion
- Rare risks with the insertion could include infection, perforation of the uterus, or expulsion of the IUC
- Does not protect against STIs

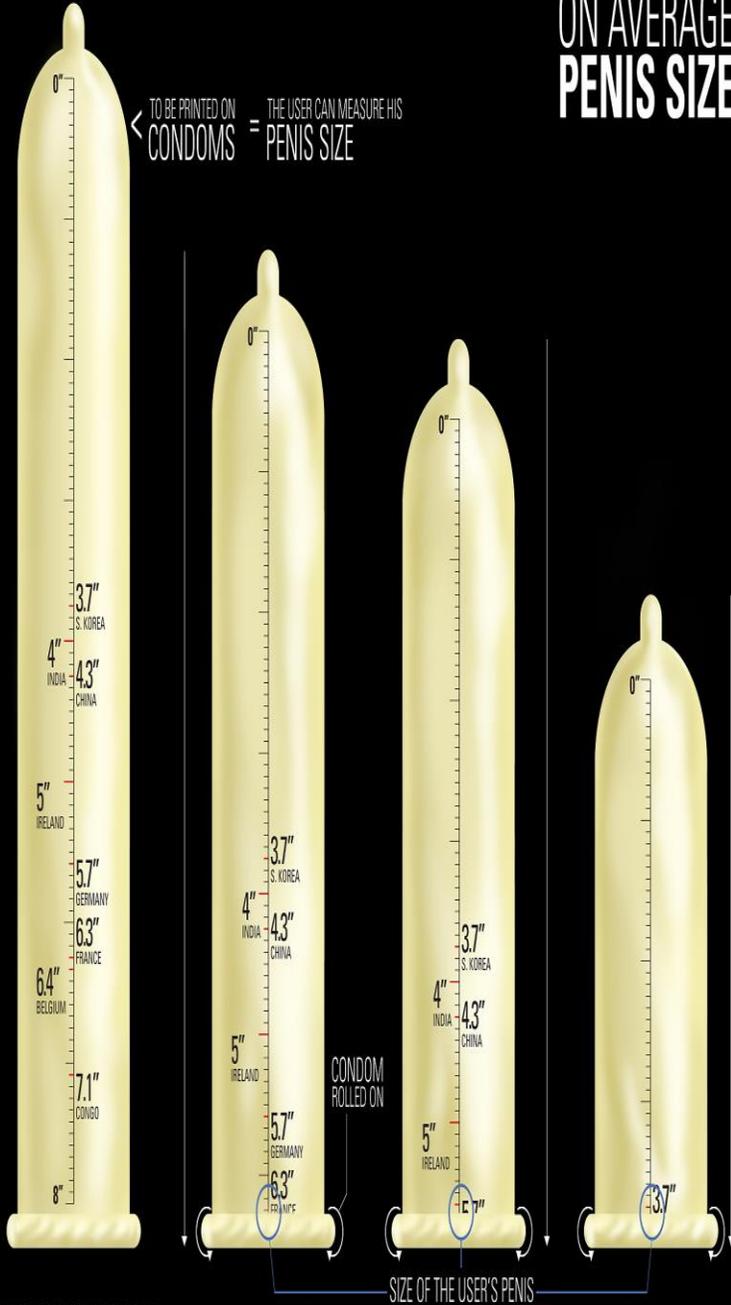
Barrier Contraceptives



- Male condoms are now made with new materials and are available with new designs and accessories to simplify and/or incentivize their use.
- Even though the female condom is now made from less expensive materials (nitrile instead of polyurethane), cost often limits its use.



GLOBAL SURVEY ON AVERAGE PENIS SIZE



COUNTRY	AVG. PENIS SIZE (INCHES)
Republic of Congo	7.1
Ecuador	7
Ghana	6.8
Colombia	6.7
Iceland	6.5
Italy	6.2
South Africa	6
Sweden	5.9
Greece	5.8
Germany	5.7
New Zealand	5.5
UK	5.5
Canada	5.5
Spain	5.5
France	5.3
Australia	5.2
Russia	5.2
USA	5.1
Ireland	5
Romania	5
China	4.3
India	4
Thailand	4
South Korea	3.8
North Korea	3.8

Male Condoms

- In heterosexual couples, the condom can minimize penile contact with the vaginal and other mucosal surfaces to reduce the spread of bacterial, protozoal and viral sexually transmitted infections.

Male condoms are available in a variety of shapes, thicknesses, and colors, with or without lubricants or spermicides.

- There are small variations in size, marketed as “snugger fitting,” “large,” and “extra-large.”
- Latex condoms are the most extensively used and best studied condoms.
- They have proven track records of significantly reducing the spread of chlamydia, gonorrhea, trichomoniasis, hepatitis B and HIV and more modestly reducing other infections spread by skin-to-skin contact, such as human papilloma virus, herpes simplex, syphilis etc.

Female Condom (FC2)

- The FC-2 is a single- size, disposable condom
- It has two flexible rings and a loose-fitting sheath that measures 17 cm in length and 7.8 cm in diameter.
- The larger ring is attached at the base of the condom covers a portion of the vulva.
- The inner ring is used to introduce the condom into the vagina and to guide the closed end to the top of the original vault.
- Once the condom is in place, the inner ring is rotated parallel to the top of the vault to help stabilize the position of the condom.
- Additional lubricant may be added to the external surface if needed.
- Potentially, the FC2 may be used off label without the inner ring by the receptive partner during anal intercourse.



Cervical Cap

- FemCap is a cervical barrier made of silicone rubber that is shaped like a sailor's hat.
- The inner aspect of the dome of the hat is filled with spermicide gel and covers the cervix.
- The brim of the hat stabilizes the unit against the vaginal walls.
- The posterior brim is larger to reach the posterior wall of the vagina.



Contraceptive Diaphragm

- Diaphragms are dome shaped devices which are filled with spermicide and placed into the woman's vagina.
- Diaphragms, therefore, need to be sized for each individual woman and resized anytime she experiences >10 % change in body weight.
- It has been taught that additional spermicide should be added into the woman's vagina if sex takes place more than 6 h after she placed the diaphragm and before any additional acts of coitus.
- The diaphragm must be left in place for at least 6 h following last exposure, but no longer than 24 h after initial placement.



Funny fact

Margaret Sanger case 1918

Contraceptive Sponge

- It was developed as an alternative to the diaphragm to provide vaginal barrier with spermicide, but without the requirement for individualization.
- By labeling, multiple acts of intercourse require no additional spermicide, but the sponge must be left in place at least 6 h after the last coital act.
- One sponge can be used for no longer than 30 h.



Vaginal Spermicides

- Spermicides are contraceptive substances that destroy the sperm to prevent their entry into the upper genital tract.
- Vaginal spermicides can be used alone for contraception, but their failure rates with single agents are much higher than other options.
- Patients should be strongly advised not to douche for 6 h following sex if spermicides are used (alone or as part of some other method).



Emergency Contraceptives



Emergency Contraceptives

- Emergency contraceptives (ECs) offer a “last chance” to prevent an unintended pregnancy.
- Currently, there are 4 progestin-only and 26 combination (estrogen plus progestin) pill brands available that must be taken within 72 h of unprotected sex according to the treatment protocols.



Mechanism of Action

- The primary mechanism of action of PRM EC pills [ulipristal acetate], combined estrogen plus progestin EC pills, and progestin-only EC pills is inhibition or delay of ovulation.
- Other proposed mechanism includes thickening of cervical mucus, alterations in tubal transport of sperm or ova, impairment of corpus luteum function, and inhibition of fertilization.
- Regardless of the time period a woman has unprotected sex, the sooner EC pills are taken the more effective they are.
- If LNG-only EC pills are used properly within 72 h of unprotected intercourse, the risk of pregnancy falls to 1 %.

Advantages and disadvantages

- Advantages

EC pills are safe for most women. No serious side effects associated with Plan B.

Progestin-only EC pills can be used by women who are not candidates for combination COCs.

EC pills can be bought or provided in advance for use in an emergency.

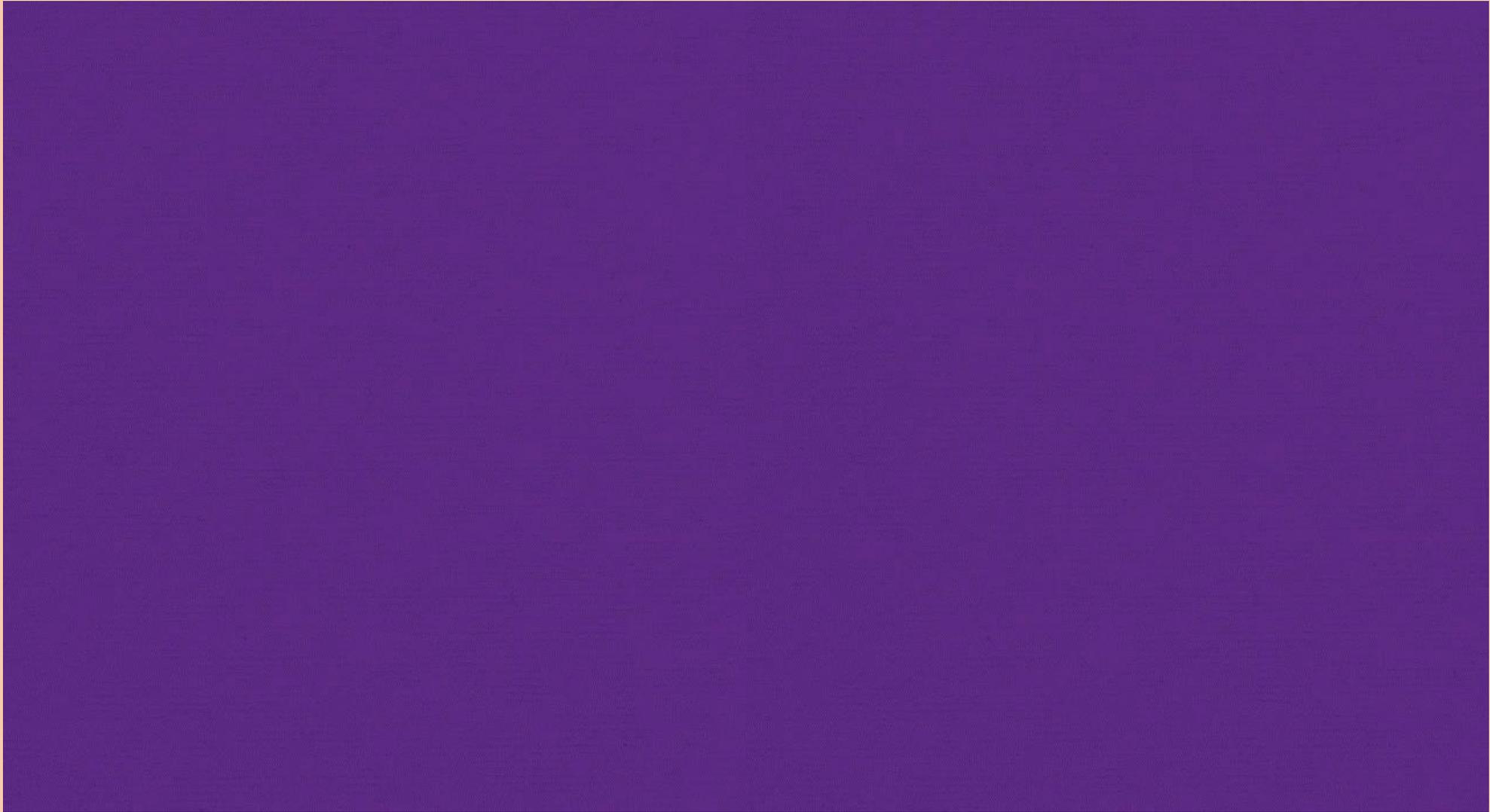
In the event of a failure, no teratogenicity or other adverse outcomes are reported after exposure to EC pills.

- Disadvantages

High rate of nausea and vomiting
Not all women know about EC options or know how to get access to them.

Many women do not know that they can use some types of birth control pills as EC.

There is only a 72–120 h window .
There is no protection from sexually transmitted infections (STIs) or HIV.





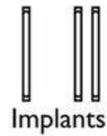


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Comparing Effectiveness of Family Planning Methods

More effective

Less than 1 pregnancy per 100 women in one year



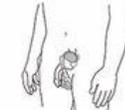
Implants



IUD



Female Sterilization



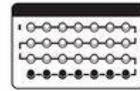
Vasectomy



Injectables



LAM



Pills



Patch



Vaginal Ring



Male Condoms



Diaphragm



Female Condoms



Fertility Awareness Methods



Withdrawal



Spermicides

Less effective

About 30 pregnancies per 100 women in one year

How to make your method more effective

Implants, IUD, female sterilization: After procedure, little or nothing to do or remember

Vasectomy: Use another method for first 3 months

Injectables: Get repeat injections on time

Lactational Amenorrhea Method (for 6 months): Breastfeed often, day and night

Pills: Take a pill each day

Patch, ring: Keep in place, change on time

Condoms, diaphragm: Use correctly every time you have sex

Fertility awareness methods: Abstain or use condoms on fertile days. Newest methods (Standard Days Method and TwoDay Method) may be easier to use.

Withdrawal, spermicides: Use correctly every time you have sex



Miss
Conception

Cheers to contraceptives.



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